Impact of Modern Technologies in Teaching and Learning for Improve Academic Achievement in Federal Polytechnic Mubi

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ABSTRACT

This research Impact of Modern Technologies in Teaching and Learning for Improve Academic Achievement In Federal Polytechnic Mubi"The objectives of the study includes: to determine the role of Office Technologies in Learning OTM programme, to identify the type of Office Technologies in learning OTM Programme, to identify the problems OTM students face while undergoing the learning process and to proffer solutions to the identified problems. Data for this research were collected using primary and secondary sources. The researcher used simple mean statistical tool and standard deviation in analyzing the data. The findings of the study reveals that when modern technologies are adequately supplied in the department it will make teaching and learning OTM programme very much effective and efficient. It was concluded that the problems of learning OTM programme are faced by in adequate supply of office technologies, poor funding, erratic power supply and poor network services. Therefore, it was recommended by the researcher That the government under the Polytechnic authorities should ensure adequate funding of the OTM department, adequate supply of relevant office technologies for teaching and learning exercise so also the department should be connected with World Wide Web to improve the internet connectivity which will go a long way in the improvement of teaching and learning of the OTM programme in the Federal Polytechnic, Mubi. Adamawa State Nigeria.
Keywords: Modern Technologies, Teaching, Learning and Academic achievement

INTRODUCTION

Office is any place where business, clerical and professional activities take place [1]. Management is an executive ability to handle a business. Hence, office management is the administrative handling, controlling and maintaining a balanced process of work inside the office of an organization whether big or small, which is necessary to achieve the best service it can provide to the people who will receive a great benefit [2,3,4]. All office technologists perform some similar tasks, many of which are related to information management.An office technologist manages paper and electronic filing system, handles and routes mail and operates a variety of office machines such as computers, telephones, fax machines and videoconferencing equipment. Such office technologist takes dictation and creates reports on letters, while others revise rough drafts written by the managers [5,6]. Office technologist must have excellent spelling and grammar skills, must type quickly and accurately and be skilled in customer service. They use a variety of computer software programms, such as databases, spreadsheets or graphics [7].

Information Technology was defined by [8] as a broad based technology (including its methods, management and application) that supports the creation, storage, manipulation and communication of information. In addition [9], defined Information Technology as digital devices made up of computers and telephones with varying capacities for information processing, which has become today's office manager's

management tool [10]. Through operation of Management Information Systems (MIS), ICT is used as a major management tool to create, store, and organize, retrieve and use information relating to staff, operations, costs, examination and other records. In the course of an office technologist career,as well as in other times of your life you may well be asked to take the minutes of a meeting [11]. You may even be asked to take on a formal role as an office technologist to a group oran organisation, whether voluntary or as a paid position. In this capacity it is essential that you know what needs to be done, and are able to take clear and accurate notes because the role of the office technologist is primarily to create and official records of the meeting. That iswhy in studying this course, office technologist you must take your studies seriously in order not to miss up when given opportunity to save in any organization [12]. However modern automation in all works of life does not exempt secretarial productivity. The required career is unchanged while the procedure continues to change as more and more sophisticated machines are introduced in the office scene [13]. The impact brought about by the invention of new office machines are immeasurable many of those office automation so much out wares the Office Technologist performance due to their effectiveness, speed and time saving [14]. The introduction of most office automation might go as far as costing office technologist their job as a result of limited numbers being employed. So office technologist must train themselves to be extra efficient to meet with the current trains in office machines. The fear of cost of craftsmanship as new product (automation) replaces the old ones becomes the issue at stake. Consequently, the issue of bearing extra cost in training and retraining office technologist becomes a problem [15].

Objectives of the Study

The main purpose of this research work is to find out the role of office Technologist in learning Office Technology and Management in Federal Polytechnic, Mubi.

1. To determine the role of Office Technologies in Learning Office Technology and Management programme in Federal Polytechnic Mubi.
2. To identify the type of Office Technologies use in learning Office Technology and Management Programme in Federal polytechnic Mubi.
3. To identify the difficulties OTM students face while undergoing the learning process in Federal Polytechnic, Mubi.
4. To proffer solutions to the identified problems in learning Office Technology and Management programmes.

Research Questions

In order to obtain information that will enable the researcher to draw her conclusion on the role of Learning Office Technology and Management in Federal Polytechnic, Mubi the following research questions were formulated to serve as a guide.

1. What are the roles ofOffice Technologies in learning OTM programme?
2. What are the types of office technologies used in learningOffice Technology and Management Programme?
3. What are the problems faced by students in learning Office Technology and Management programmes?
4. What are the solution to problems identified in learning Office Technology and Management programme?

METHODOLOGY
Research Methodology

The research methodology to e used for this research work includes the research design, population, sample population, instrumentation, reliability/validity, method of data collection method of data analysis and decision rule.

Research Design

This research design adopted for tis research work is survey method. This method is appropriate because the opinions of the employed office technologists in Federal Polytechnic, Mubi is required in the treatment of the problem at hand. The descriptive nature of the research calls for survey method.

Population of Study

The population of the study consists of the entire NDII OTMof the 2018/2019 academic session. Federal Polytechnic, Mubi which is 90 in number.

Sample Population

The researcher studied the entire population of the NDII students of 2018/2019 academic session all population of office technologists in Federal Polytechnic, Mubi. They are 90 in number.

Instrumentation

The researcher intends to use a "20 item self-developed questionnaire" titled "Role of Office Technologist in learning Office Technology and Management programme in Federal Polytechnic, Mubi".

Reliability/Validity

To ensure reliability and validity of the instrument the researcher used the supervisor, and two other experts/professionals from within the Federal polytechnic, Mubi for face and content validity.

Method of Data Collection

Data for this research were collected using primary and secondary sources. The primary source is the questionnaire, while the secondary sources include textbooks, journals and internets.

Method of Data Analysis

The data for this work was analyzed using the mean score and standard deviation frequency distribution which was obtained from response in the form of a five (5) point scale. Each mean and standard deviation was interpreted according to scale used for the data collected. The Formulas are:

Mean

$$\bar{x} = \frac{\Sigma f x}{N}$$

Where

$\bar{x}$ = Mean

Σ = Summation
X = Nominal/Assigned values
F = Frequency
N = Number of respondents

Standard Deviation

$$\sigma = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}}$$

Where

σ = Standard Deviation

$\sqrt{}$ = Square Root
Σ = Summation

x = Number of Respondents for Scale Response

$\overline{x}$ = Mean

N = Total Number of Respondent

DECISION RULE

The decision rule used by the researcher for mean is that any response with a mean score of 3.5

S/NO	STATEMENTS	SA 5	A 4	UD 3	D 2	SD 1	ΣFX	N	$\overline{x}$	SD	Remarks
1	The use of office technologies in teaching and learning OTM programme makes it effective	70	25	5	0	0	465	90	5.1	1.9	Accepted
2	Accuracy in learning OTM programme is only assured when using office technologies	40	30	13	5	2	371	90	4.1	1.9	Accepted
3	The production of half-baked graduate is controlled by having adequate provision of office technologies for teaching and learning the OTM programme.	49	20	15	5	1	336	90	3.7	1.9	Accepted
4	The use of office technologies in teaching and learning helps in the development of the learner's skills.	68	12	8	1	1	415	90	4.6	2.0	Accepted
5	Sharing massages is easier if appropriate technologies are adequately supplied for teaching and learning OTM programme.	67	15	5	2	1	415	90	4.6	2.1	Accepted

and above would be taken as agreed or accepted and as having effect on rejected or disagreed and as having no effect on the problem at hand. Whereas for standard deviation, any calculated standard deviation that the problem at hand, while any mean score below 3.5 will be taken as falls within the range of 2.5 to 3.8 will be accepted as normal distribution.

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Research question 1: What are the roles of office technologies in learning OTM programme? Source: Field Survey, Average Mean and S.D.

$\overline{X} = \dfrac{22}{5} = 4.4$ $SD \dfrac{9.8}{5} = 2$

From the table above the analysis shows that the question 'what are the roles of office technologies n learning OTM programme?' This question was generally accepted with a means of 5.0, 4.1, 3.7, 4.6, 4.6 respectively. The standard deviation of 1.9, 1.9, 1.9, 2.0, 2.1, respectively were also obtained.

Also the average mean of 4.4 was observed in table one (1) and S.D. of 2.0 was obtained. Therefore the use of technologies improves learning more especially in Federal polytechnic, Mubi. Learning is effective and efficient when modern technologies are provided in our laboratories. It is ascertain from the table above that when modern technologies are supplied in the department it makes it easier when they goes to the field after studies, so government should provide modern office technologies to improve knowledge in the

department of Office Technology and management.

Research question two: What are the types of modern office technologies use in teaching OTM programme

Table 2

S/N	STATEMENT	SA 5	A 4	UD 3	D 2	SD 1	ΣFX	N	X	SD	REMARKS
1	Computer	81	5	3	2	0	438	90	3.9	2.2	Accepted
2	Fax-machine	10	22	50	5	3	301	90	3.3	1.8	Accepted
3	Typewriter	0	0	83	0	7	240	90	2.7	1.7	Rejected
4	Scanner	48	12	20	9	1	367	90	4.0	1.9	Accepted
5	Printer	83	5	1	1	0	440	90	5.0	2.2	Accepted

Source: Field Survey, 2019: Average Mean and S.D. $\bar{X} = \frac{18}{5} = 3.6$ SD $\frac{9.8}{5} = 2.0$

The question 'what are the types of modern office technologies use in teaching Office Technology Management programme.' The above options were put forward computer, fax-machine, typewriter, scanner etc. all the options were accepted except for typewriter with 2.7 which was rejected by the audience and one of the technologies which is outdated. The standard deviation of 2.2, 1.8, 1.7, 1.9, 2.2 were obtained from the audience in table 2 above. Therefore computer, fax machine, scanner, printer are important technologies use in Office Technology and Management to teach future will be office technologist. Research question 3

What are the problems in learning OTM programme in the OTM department?

Table 3

S/N	STATEMENT	SA 5	A 4	UD 3	D 2	SD 1	ΣFX	N	X	SD	REMARKS
1	Inadequate funding	35	25	20	4	6	349	90	3.9	1.9	Accepted
2	Inadequate manpower	20	22	45	1	2	327	90	3.6	1.8	Accepted
3	Obsolete machines and equipment	50	23	7	7	3	380	90	4.2	2.0	Accepted
4	Poor power supply	64	20	4	1	1	415	90	4.6	2.1	Accepted
5	Poor network service	78	10	2	0	0	436	90	4.8	2.2	Accepted

Source: Field Survey 2019: Average Mean and S.D. $\bar{X} = \frac{21}{5} = 4.2$ SD $\frac{10}{5} = 2.0$

The question 'what are the problem in learning Office Technology and Management Department. These are the indicated by: inadequate funding, inadequate manpower, obsolete achiness and equipment, poor power supply etc. These were accepted with the mean score of 3.9, 3.6, 4.2, 4,6, 4.8 with an average mean score of 4.2. Also the standard deviation where 1.9, 1.8, 2.0, 2.1, 2.2, therefore inadequate funding, inadequate manpower, obsolete machine etc. hinders the smooth running of learning and understanding office technologies in Office Technology and Management. Also government should constantly buy new and modern technologies in order to improve learning activities in our polytechnics especially Department of Office Technology and Management. It is clear from the table above, that a new technology improves learning activities more especially in Federal Polytechnic Mubi.

Research question 4: How can the problems of learning OTM programme be solved?

Table 4

S/No	STATEMENT	SA 5	A 4	UD 3	D 2	SD 1	ΣFX	N	X	SD	REMARKS
1	Adequate provision of funds	34	36	15	4	1	368	90	4.0	1.94	Accepted
2	Adequate provision of manpower	78	5	5	1	1	328	90	3,6	2.1	Accepted
3	Provision and supply of latest office technologies	61	23	6	0	0	415	90	4.6	2,1	Accepted
4	Improvement in the provision of power supply	49	11	10	14	6	353	90	3.9	2.2	Accepted
5	Ensuring of network accessibility location where the OTM should be located	82	0	5	3	0	431	90	4.8	2.1	Accepted

Source: Field Survey 2019: Average Mean and S.D. $\bar{X} = \frac{22}{5} = 4.4$ SD $\frac{9.8}{5} = 2.0$

The questions how can the problems of learning Office Technology and Management be solved. The option adequate provision of funds, provision and supply of latest technologies etc. were given as options to the respondents. The questions in table four were accepted with the following option mean with 4.0, 3.6, 4.6, 3.9, 4.8 with standard deviation of 1.9, 2.1, 2.1, 2.2, 2.1 respectively with average deviation of 2.1. From the table above it is clear that government should provide enough fund to run Office Technology and Management Department also provision of standby generators be provided. Also Power Holding Company of Nigeria should connect Mubi with high tension electric cables line to improve power supply in Mubi. The department should also be connected to the World Wide Web to improve internet connectivity in Office Technology Management Department

Summary of Findings

Having gone through the method of investigation, extensive research studies and observations, data collection, presentation, analysis and interpretation of data, the following are the finding.

1. It is ascertain from the table above that when modern technologies are supplied in the department it makes it easier when they goes to the field after studies, so government should provide modern office technologies to improve knowledge in the department of Office Technology and management.

2. Therefore computer, fax machine, scanner, printer are important technologies use in Office Technology and Management to teach future will be office technologist.

3. Also government should constantly buy new and modern technologies in order

to improve learning activities in our polytechnics especially Department of Office Technology and Management.

4. Also Power Holding Company of Nigeria should connect Mubi with high tension electric cables line to improve power supply in Mubi.

5. The department should also be connected to the World Wide Web to improve internet connectivity in Office Technology Management Department.

6. Office technologist to be trained in the use of modern office technologies constantly to improve their skills in the work place

CONCLUSION AND RECOMMENDATION

SUMMARY

This research was on Role of Office Technologies in Learning Office Technology Programme in Federal Polytechnic Mubi. Some of the objectives of the project were: To determine the role of Office Technologies in Learning Office Technology and Management programme in Federal Polytechnic Mubi: To identify the type of Office Technologies in learning Office Technology and Management Programme in Federal polytechnic Mubi. To identify the difficulties office technologies face while undergoing the learning process in Federal Polytechnic, Mubi. To proffer solutions to the identified problems in learning Office Technology and Management programmes. Literature review was done using the primary and secondary sources of data. The sample population for the study was made up of all the 2017/2018 ND II student Office Technology and Management which is 90 students. The methodology adopted for this research work was the survey method. This method was though appropriate because the opinions of the respondents were needed to resolve the problem at hand.

A five-point Likert-type scale was used to present the data collection while the mean statistical tool was used to analyze the data also the standard deviation was also used to ascertain the true nature of the research and the weight of the research. The findings of the research were also presented together with well thought out recommendations.

CONCLUSION

An investigation had been done to establish that Role of Office Technologies in Learning Office Technology Programme in Federal Polytechnic Mubi is a success. This is achieved by making an insight investigation to ascertain that office technologies improves learning skills and also prepare would be office technologist to face the future with confidence. Many problems of the office technologies is that there are constant innovation and improvement in office machines that office technologist must keep vast with the current trends in office techn ologies. Modern office technologies help a lot to improvesoffice technologist in her work, to increase out and improves the organisation economy. Many employers must be ready to train and retrain their office technologists in the use of modern technologies to keep up to date with modern technologies and mode of operating them.

RECOMMENDATIONS

Based on the above conclusions, the following recommendations are made:

1. It is ascertain from the study conducted that when modern office technologies are supplied in the department it makes learning easier, effective and efficient. Therefore, government under the management of the polytechnic authorities

should provide modern office technologies in the department of Office Technology and management for effective teaching and learning.

2. Also Power Holding Company of Nigeria should connect Mubi with high tension electric cables line to improve power supply in Mubi.

3. The department should also be connected to the World Wide Web to improve internet connectivity in Office Technology Management Department.

REFERENCES

1. Adakole, E, Kenedy A. &Nnaji F. O. (2016).Factors affecting availability of instructionalmaterials in teaching and learning office technology and management in polytechnics in Niger State, Nigeria.*American Journal of Research Communication, 4*(10) 35-36.

2. Ajayi, I.A &Ekundayo H.T, (2006). Funding Initiatives in university education in Nigeria.*Journal of the Association for Educational Administration and planning, 4*(5), 10-15

3. Akpomudjere, O. &Usioboh, S. A. (2011). Emerging challenges in business education. *Nigerian Journal of Business Education, 7*(3), 34- 46.

4. Aramide KA, Bolarinwa OM (2010). Availability and use of audiovisual and electronic resources by distance learning students in Nigerian universities. *A case study of National Open University of Nigeria (NOUN), Ibadan study centre.Library Philosophy and Practice.*Retrieved on 12th July, 2018 from: http://unllib.unl.edu/LPP.

5. *Curriculum and Course Specification for office technology and management.*Kaduna: Federal Republic of Nigeria, UNECO – Nigeria Project.

6. Emesini, N. O. (2009). Electronic Learning as An Innovation in Teaching and Learning in Nigerian Universities. A Paper Presented at The 22nd. *Annual Conference of the Curriculum Organization of Nigeria held at Cairo on September*, 4(2), 2-4

7. Fadare, G. O. (2014). Analysis of barriers to qualitative business education in Nigeria. *Business Education Journal, 4(1), 284-291.*

8. Jewel, C.H. (2010).*Office Machines and Appliances.* Retrieved on 3rd July, 2019 from www.diycommitteeguide.org

9. National Board for Technical Education (2004), *Office Technology and Management*

10. Oghuvbu, E.P. (2009). Analysis of resources management in primary schools in Delta State, Nigeria.*Nigerian Academic Leadership Journal, 7*(1). 22 - 34Retrieved on the 25th September,2018, from http://www.aljrss.

11. Ogunbameru, O. (2004) Personality Dimension to cultism in Nigerian tertiary institution: a sociological perspective. *Journal of Health Education 16*(2), 91- 98

12. Owoeye, J. S. &Yara, P. O. (2011).School facilities and students 'academic achievement of secondary school agricultural science in Ekiti state, Nigeria.*Asian Social Science journal 7*(7), 64-74.

13. Paul, N. (2015) Research in Tertiary Institution in Nigeria: Issues and prospects. *Journals of humanities and Social Science,20*(6) 45-49.

14. Shaddy, S. (2008).Effects of instructional aids on teaching and learning process. Retrieved on 24th August from http://establishingteachers.blogspot.com/search/label/Instructional%20Aids.

15. Udoye, R. N. &Ikenga, U. G. (2010).Impact and challenges of information communication technology in the teaching and learning of accounting education.*Book of Readings, 1*(10), 67-75.